

# Banaras Hindu University

**Question Paper Name:** 484 23rd May 2019 Shift 1  
**Subject Name:** 484  
**Creation Date:** 2019-05-23 13:20:49  
**Duration:** 120  
**Total Marks:** 360  
**Display Marks:** Yes  
**Share Answer Key With Delivery Engine:** Yes  
**Actual Answer Key:** Yes

## MSc Zoology

**Group Number :** 1  
**Group Id :** 65898812  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 120  
**Revisit allowed for view? :** No  
**Revisit allowed for edit? :** No  
**Break time:** 0  
**Group Marks:** 360

## MSc Zoology

**Section Id :** 65898812  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 120  
**Number of Questions to be attempted:** 120  
**Section Marks:** 360  
**Display Number Panel:** Yes  
**Group All Questions:** No

**Sub-Section Number:** 1  
**Sub-Section Id:** 65898812  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 6589881201 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes**  
**Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes**

**Correct Marks : 3 Wrong Marks : 1**

**Question Label : Multiple Choice Question**

How are amino acids and monosaccharides transported from the internal lumen into eapithelial cells ?

**Options :**

1. Simple diffusion
2. Active transport
3. Facilitated diffusion
4. Endocytosis

Question Number : 2 Question Id : 6589881202 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If a sample of DNA is found to have the base composition (mole ratios) of adenine, 40; thymine, 22; guanine, 21; and cytosine 17, which of the following conclusions will be most appropriate ?

Options :

1. The given DNA is a double stranded circular molecule
2. It is a linear double stranded molecule
3. It is a single stranded molecule
4. It has high melting point

Question Number : 3 Question Id : 6589881203 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The recombination frequencies between three genes, x, y and z are as given below :

Between x and y 10%, y and z 4%, x and z 6%. The order of the genes will be :

Options :

1. x-y-z
2. x-z-y
3. z-y-x
4. Both x-y-z and z-y-x

Question Number : 4 Question Id : 6589881204 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

What kind of aneuploid gametes will be generated if meiotic non-disjunction occurs at first division ( $n$  means haploid number of chromosomes) ?

Options :

1. either  $n + 1$  or  $n - 1$
2. both  $n + 1$  or  $n - 1$
3. both  $n - 1$  and  $n$
4.  $n - 1$

Question Number : 5 Question Id : 6589881205 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The blood group of a couple is as follows : Husband 'O' Rh -ve, wife 'A' Rh -ve. Their new born baby got mixed in the hospital. Among the four new born babies present in the hospital, which one would you think was their baby ?

Options :

1. The baby with blood group 'A' Rh -ve
2. The baby with blood group 'A' Rh +ve
3. The baby with blood group 'O' Rh +ve
4. The baby with blood group 'AB' Rh -ve

Question Number : 6 Question Id : 6589881206 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

*CIB* technique in *Drosophila* is used to detect :

Options :

1. autosomal recessive mutations
2. autosomal dominant mutations
3. sex linked dominant mutations
4. sex linked recessive lethal mutations

Question Number : 7 Question Id : 6589881207 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A recombination event in bacteria involving temperate phage lambda occurs during :

Options :

1. Transformation
2. Conjugation
3. Generalized transduction
4. Specialized transduction

Question Number : 8 Question Id : 6589881208 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A suitable example of DNA-repair deficient disorder in human is :

Options :

1. *Xeroderma pigmentosum*
2. Sickle cell anemia
3. albinism
4. Both *Xeroderma pigmentosum* & albinism

Question Number : 9 Question Id : 6589881209 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If the allelic distribution of a given gene in a population is : A 60% and a 40%, then the genotypic distribution of AA, Aa and aa will be as follows :

Options :

1. 9 : 12 : 4
2. 9 : 2 : 4
3. 1 : 2 : 1

4. 6 : 12 : 4

Question Number : 10 Question Id : 6589881210 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If a dihybrid test cross yields 4 : 2 : 2 : 4 ratio, then it indicates that the :

Options :

1. two genes are independently assorting
2. the alleles of a gene is segregated
3. two genes are linked
4. the two genes are y-linked

Question Number : 11 Question Id : 6589881211 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

30 S ribosomes are present in :

Options :

1. Prokaryotic cells
2. Eukaryotic cells
3. Both prokaryotic cells and eukaryotic cells
4. Viruses

Question Number : 12 Question Id : 6589881212 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Sodium potassium ATPase pump transports :

Options :

1. 3 potassium in and 2 sodium ions out of the cell
2. 2 potassium in and 3 sodium ions out of the cell
3. 3 potassium out and 3 sodium ions in of the cell

4. 3 potassium out and 2 sodium ions in of the cell

Question Number : 13 Question Id : 6589881213 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

COP 1 vesicles transport proteins from :

Options :

1. Endoplasmic reticulum to *cis*-Golgi network

2. *cis*-Golgi network to endoplasmic reticulum

3. Between Golgi compartments

4. Both *cis*-Golgi network to endoplasmic reticulum and between Golgi compartments

Question Number : 14 Question Id : 6589881214 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Detoxification of drugs takes place in :

Options :

1. Smooth Endoplasmic reticulum

2. Rough Endoplasmic reticulum

3. Golgi Body

4. Lysosomes

Question Number : 15 Question Id : 6589881215 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The following proteins are abundant in extra cellular matrix :

Options :

1. Collagen

2. Tubulin

3. Actin

4. Myosin

Question Number : 16 Question Id : 6589881216 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Restriction point in the cell cycle is present between :

Options :

1.  $G_1$  to S phase

2. S to  $G_2$  phase

3.  $G_2$  to M phase

4.  $G_0$  to  $G_1$  phase

Question Number : 17 Question Id : 6589881217 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In comparison to the normal cells, the requirement of growth factors for transformed cells are usually :

Options :

1. More

2. Less

3. Same

4. No requirement

Question Number : 18 Question Id : 6589881218 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The organelle responsible for I-cell disease is :

Options :

1. Mitochondria

2. Endoplasmic reticulum

3. Lysosome

4. Peroxisome

Question Number : 19 Question Id : 6589881219 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Crossing over of chromatid pairs occur during :

Options :

1. Leptotene stage

2. Zygotene stage

3. Pachytene stage

4. Diplotene stage

Question Number : 20 Question Id : 6589881220 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The cytoskeletal protein that helps in the maintenance of nuclear shape is :

Options :

1. Microtubule

2. Actin

3. Lamin

4. Myosin

Question Number : 21 Question Id : 6589881221 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Cyclin dependent kinases are family of :

Options :

1. Serine threonine protein kinases
2. Tyrosine kinases
3. Histidine specific protein kinases
4. Mixed kinases

Question Number : 22 Question Id : 6589881222 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A genetically diseased father marries with a normal woman. This couple has two carrier girls and five normal sons. It may be which type of genetic disease ?

Options :

1. sex-influenced disease
2. blood group inheritance disease
3. sex-linked disease
4. sex-limited trait

Question Number : 23 Question Id : 6589881223 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Cat's cry syndrome in humans is caused by the :

Options :

1. trisomy of 21st chromosome
2. fertilization of an XX egg by a normal Y-bearing sperm
3. loss of half of the short arm of chromosome 5
4. loss of half of the long arm of chromosome 5

Question Number : 24 Question Id : 6589881224 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Mitochondrial mutations in humans tend to affect some tissues more than others. What is the most likely explanation ?

Options :

1. Some human tissues do not have mitochondria
2. Some human tissues have higher energy demands than others
3. Some human tissues can synthesize large amounts of ATP in absence of mitochondrial function
4. Heteroplasmy and subsequent segregation often leads to variegated phenotype

Question Number : 25 Question Id : 6589881225 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Solenocytes are found in :

Options :

1. *Branchiostoma*
2. *Herdmania*
3. Teleosts
4. *Balanoglossus*

Question Number : 26 Question Id : 6589881226 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Fossil records of vertebrates were found first in the rocks of :

Options :

1. Ordovician
2. Jurassic
3. Cambrian
4. Devonian

Question Number : 27 Question Id : 6589881227 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Sense organs in ostracoderm include :

Options :

1. Three nostrils
2. A single lateral and a median eye
3. A pair of nostrils
4. A pair of large lateral eyes, a median pineal eye and a median nostril

Question Number : 28 Question Id : 6589881228 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Nasohypophyseal sac of Petromyzontiformes is :

Options :

1. Open and not connected to pharynx
2. Closed and not connected to pharynx
3. Open and connected to pharynx
4. Closed and connected to pharynx

Question Number : 29 Question Id : 6589881229 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Air bladder serves as both a respiratory organ (lung) and a hydrostatic organ in :

Options :

1. *Amia*
2. *Polypterus*
3. *Latimeria*

4. *Dipnoi*

Question Number : 30 Question Id : 6589881230 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A fish lays fertilized eggs inside protective horny egg capsules, which remain anchored to seaweed by their long tendrils. This phenomenon is observed in :

Options :

1. *Hippocampus*

2. *Scyllium*

3. *Tilapia*

4. *Pholis*

Question Number : 31 Question Id : 6589881231 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The jaw suspensorium in elasmobranchs is :

Options :

1. *Hyostylic*

2. *Amphistylic*

3. *Autodiastylic*

4. *Autostylic*

Question Number : 32 Question Id : 6589881232 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Nissel's granules are made up of :

Options :

1. *DNA*

2. Protein
3. Thymine
4. Ribonucleoprotein

Question Number : 33 Question Id : 6589881233 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Femoral glands are found on the :

Options :

1. Ear of toads
2. Tail of birds
3. Thighs of male lizards
4. Scales of fish

Question Number : 34 Question Id : 6589881234 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Protonephros is found in :

Options :

1. Larval cyclostomes
2. Reptiles
3. Fishes
4. Amphibians

Question Number : 35 Question Id : 6589881235 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Polymerization of acrylamide can be initiated by :

Options :

1. Using a cross linking agent such as bis-acrylamide
2. Adding ammonium persulfate, TEMED and bis-acrylamide
3. Adding riboflavin in the mixture and exposing it to bright light for few hours
4. Both adding ammonium persulfate and TEMED and adding riboflavin in the mixture and exposing it to bright light for few hours

Question Number : 36 Question Id : 6589881236 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following methods is applied to sterilize e.g. enzymes, urea, ascorbic acid, some growth factors etc.

Options :

1. Autoclaving
2. Baking
3. Filtration
4. Solvent treatment

Question Number : 37 Question Id : 6589881237 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

SDS (Sodium dodecyl sulphate) is used while separating protein by SDS-PAGE since :

Options :

1. It decreases the surface tension of the buffer used for electrophoresis
2. It helps in solubilization of proteins and facilitates separation quickly
3. It stabilizes the protein
4. It binds to proteins and confers uniform negative charges and facilitates the mobility of proteins during electrophoresis

Question Number : 38 Question Id : 6589881238 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

What would be the limit of resolution in a compound microscope if  $\lambda$  used is 450nm, refractive index of medium = 1 and angular aperture  $\sin 70^\circ = 0.94$  ?

Options :

1. approximately 430 nm
2. approximately 200 nm
3. approximately 380 nm
4. approximately 290 nm

Question Number : 39 Question Id : 6589881239 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The reason why much higher resolution achieved by an electron microscope than a light microscope is :

Options :

1. The lenses used are of much higher quality
2. Very short wave length of electrons
3. The images are viewed on screen rather than directly using an eye piece or ocular lens
4. Their higher magnification

Question Number : 40 Question Id : 6589881240 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following factors will not have an effect on the sedimentation of a particle during centrifugation ?

Options :

1. density of the solvent
2. Mass of sedimenting particle

3. Atmospheric pressure

4. Angular velocity of rotation

Question Number : 41 Question Id : 6589881241 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

What prevents proteolytic enzymes from digesting the exocrine cells in which they are produced and stored before release ?

Options :

1. Protease inhibitors

2. Membrane

3. Zymogens

4. Salt

Question Number : 42 Question Id : 6589881242 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The oxygen dissociation curve of hemoglobin to myoglobin is :

Options :

1. Sigmoid to hyperbolic

2. Hyperbolic to sigmoid

3. Linear to hyperbolic

4. Sigmoid to linear

Question Number : 43 Question Id : 6589881243 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In the tubular lumen of the kidney, buffering of the renal filtrate is carried out by which of the following in order to facilitate greater secretion of protons :

Options :

1.  $H_2PO_4^-$  and  $NH_4^+$

2.  $Na^+$  and  $Cl^-$
3.  $H^+$  and  $HCO_3^-$
4.  $Na^+ / K^+$  ATPase

Question Number : 44 Question Id : 6589881244 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The lateral-line sensory system of fishes and amphibians, which detects motion, in the surrounding water, is based on which of the following types of cells ?

Options :

1. Rod cells
2. Cones
3. Hair cells
4. Basement membrane cells

Question Number : 45 Question Id : 6589881245 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The most ancient voltage-gated ion channels are those that selectively allow ..... to cross the membrane, found throughout the animal kingdom and in most types of cells.

Options :

1.  $Na^+$
2.  $Cl^-$
3.  $K^+$
4.  $Ca^{+2}$

Question Number : 46 Question Id : 6589881246 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

During muscle contraction, in the presence of ATP, myosin and actin filaments associate and dissociate cyclically. The actin-myosin bond is stronger, when :

Options :

1. Myosin-ATP is converted to myosin-ADP-Pi
2. Myosin-ADP-Pi is converted to myosin + ADP+Pi
3. Actin binds to calcium ( $Ca^{2+}$ )
4. Myosin binds to calcium ( $Ca^{2+}$ )

Question Number : 47 Question Id : 6589881247 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

An individual has a parasite worm infection and another is responding to an allergen such as pollen. Which one of the following features would be common to both of them ?

Options :

1. Increase in cytotoxic T cell population
2. Risk of developing an autoimmune disease
3. Reduced innate immune response
4. Increased level of IgE

Question Number : 48 Question Id : 6589881248 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

There are 5 classes of antibodies (IgM, IgD, IgG, IgE and IgA). What determines the class to which antibody belongs ?

Options :

1. Structure of the light chain
2. Variable region of the antibody

3. Structure of the heavy chain constant region

4. Stages of infection

Question Number : 49 Question Id : 6589881249 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Immunological diversity in antibody is generated by :

Options :

1. Rearrangement of immunoglobulin genes

2. Alternative RNA processing

3. Post transcriptional modification

4. Post translational modification

Question Number : 50 Question Id : 6589881250 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following are examples of primary lymphoid organ ?

Options :

1. Spleen and lymph node

2. Lymph node and peyer's patches

3. Bone marrow and thymus

4. Tonsils and liver

Question Number : 51 Question Id : 6589881251 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A genetic region found in all humans whose products primarily responsible for the rejection of grafts between individuals, is called :

Options :

1. Epitope
2. Antigen
3. Fc
4. Major histocompatibility complex

Question Number : 52 Question Id : 6589881252 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A baby born to which one of these couples is most likely to suffer from haemolytic disease of newborn ?

Options :

1. Rh + mother and Rh + father
2. Rh – mother and Rh – father
3. Rh + mother and Rh – father
4. Rh – mother and Rh + father

Question Number : 53 Question Id : 6589881253 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Taxonomy deals with :

Options :

1. Identification of organisms
2. Classification of organisms
3. Diversity and existing relationship among the organisms
4. Identification, naming and classification of both plants and animals

Question Number : 54 Question Id : 6589881254 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following is *not* covered under Taxonomy ?

Options :

1. Alpha taxonomy
2. Beta taxonomy
3. Delta taxonomy
4. Gamma taxonomy

Question Number : 55 Question Id : 6589881255 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following species concepts believe that each morphological form be considered a separate species ?

Options :

1. Biological
2. Evolutionary
3. Ecological
4. Typological

Question Number : 56 Question Id : 6589881256 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Members of two species belong to a common genus and are morphologically very similar to each other but they are reproductively isolated. These two species are therefore referred as :

Options :

1. Sibling species
2. Allopatric species
3. Sympatric species
4. Subspecies

Question Number : 57 Question Id : 6589881257 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A local population of a species or the community of potentially interbreeding individuals at a given locality form :

Options :

1. Subspecies
2. Variety
3. Deme
4. Species

Question Number : 58 Question Id : 6589881258 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one is correct match of the larval form to its group :

Options :

1. Brachiolaria - Asteroidea; Cysticercus - Cestoda ; Planula - Jelly fish;  
Trochophore-Polychaeta
2. Brachiolaria-Trochophore; Cysticercus - Cestoda; Planula - Jelly fish;  
Asteroidea - Polychaeta
3. Brachiolaria - Asteroidea ; Cysticercus - Jelly fish; Planula Cestoda;  
Trochophore- Polychaeta
4. Brachiolaria - Cestoda; Cysticercus - Asteroide; Planula-Polycheata;  
Trochophore-Jelly fish

Question Number : 59 Question Id : 6589881259 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In a population, a single nucleotide variant (SNV) will be called single nucleotide polymorphism (SNP) if :

Options :

1. It has a frequency of  $>0.5\%$
2. It has a frequency of  $>0.2\%$
3. It has a frequency of  $>1\%$

4. It has a frequency of  $<1\%$

Question Number : 60 Question Id : 6589881260 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Fate of most mutations in the human genome determined by genetic drift is :

Options :

1. Neutral theory of evolution
2. Hardy-Weinberg equilibrium
3. Wright-Fisher model
4. Nearly neutral model

Question Number : 61 Question Id : 6589881261 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In which theory of speciation, a new species emerges from within the geographic range of its ancestor ?

Options :

1. Allopatric speciation
2. Parapatric speciation
3. Sympatric speciation
4. Peripatric speciation

Question Number : 62 Question Id : 6589881262 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Calcium is used for the process of Osteogenesis in the presence of :

Options :

1. Calcitonin
2. Parathormone

3. Relaxin

4. Estrogen

Question Number : 63 Question Id : 6589881263 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If we perform hypophysectomy, which of the following hormone secretion will not be much affected :

Options :

1. Cortisol

2. Androgen

3. Estrogen

4. Aldosterone

Question Number : 64 Question Id : 6589881264 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Goitre can be caused due to :

Options :

1. Hyperthyroidism

2. Hypothyroidism

3. Both Hyperthyroidism and hypothyroidism

4. Hyper-parathyroidism

Question Number : 65 Question Id : 6589881265 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Addison's disease is characterized by :

Options :

1. Hyponatremia and hyperkalemia

2. Hyponatremia and hypokalemia

3. Hyponatremia and hyperkalemia

4. Hypercalcemia and hyponatremia

Question Number : 66 Question Id : 6589881266 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Vitamin D<sub>3</sub> is activated in :

Options :

1. Skin

2. Liver

3. Proximal convoluted tubular cells

4. Distal convoluted tubular cells

Question Number : 67 Question Id : 6589881267 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Vasopressin is mainly synthesized in :

Options :

1. Paraventricular nucleus

2. Arcuate nucleus

3. Supra-optic nucleus

4. Dorso-median nucleus

Question Number : 68 Question Id : 6589881268 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Growth hormone of pituitary stimulates the growth of cartilage and bone through :

Options :

1. Somatomedins

2. Somatostatin

3. Somatocrinin

4. Lipotrophin

Question Number : 69 Question Id : 6589881269 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Ramesh is still suffering from the unexpected and tragic death of both of his parents in an automobile accident last month. Which of the following hormones listed is helping him to cope with this long-term stressor ?

Options :

1. Glucocorticoids

2. Mineralocorticoids

3. Sex Hormones

4. Thyroxine

Question Number : 70 Question Id : 6589881270 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following statement regarding angiotensin II is wrong :

Options :

1. It increases vascular resistance

2. It increases vasopressin secretion

3. It increases salt appetite

4. it decreases thirst

Question Number : 71 Question Id : 6589881271 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Conversion of Estrone to estradiol is catalyzed by :

Options :

1.  $3\beta$  HSD

2.  $17\beta$  HSD
3.  $20\alpha$  HSD
4. Aromatase

Question Number : 72 Question Id : 6589881272 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Iodide is trapped into thyroid follicular cells via :

Options :

1. Simple diffusion
2. Facilitated diffusion
3. Primary active transporter
4. Secondary active transporter

Question Number : 73 Question Id : 6589881273 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following statement regarding glucocorticoids is *not* true ?

Options :

1. It increase glucose utilization by muscles
2. It increases lipolysis
3. It increases glycogen storage in the liver
4. It promotes gluconeogenesis in the liver

Question Number : 74 Question Id : 6589881274 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Evolutionary convergence is development of :

Options :

1. Common set of character in group of different ancestry

2. Dissimilar character in closely related groups
3. Common set of characters in closely related groups
4. Random mating

Question Number : 75 Question Id : 6589881275 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following evidences does *not* favour the Lamarckian concept of inheritance of acquired characters ?

Options :

1. Lack of pigment in cave-dwelling animals
2. Melanization in peppered moth
3. Absence of limbs in snakes
4. Presence of webbed toes in aquatic birds

Question Number : 76 Question Id : 6589881276 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which evidence of evolution is related to Darwin's finches ?

Options :

1. Evidences from biogeographical distribution
2. Evidences from comparative anatomy
3. Evidences from embryology
4. Evidences from paleontology

Question Number : 77 Question Id : 6589881277 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

You have over 10,000 gold fish in one large tank but, due to an electrical problem, 95% of the fish perish one night. The remaining 5% are left to breed and repopulate, passing their genes and traits on to future generations. What type of genetic drift would this be considered ?

Options :

1. Bottleneck event
2. Founder effect
3. Extinction
4. Natural selection

Question Number : 78 Question Id : 6589881278 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If brief periods of changes interrupt long periods of stasis, this process of evolution is called as :

Options :

1. Speciation
2. Mutation pressure
3. Genetic pressure
4. Punctuated equilibrium model

Question Number : 79 Question Id : 6589881279 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The ability to taste phenylthiocarbamide (PTC) is a trait controlled by 2 alleles (PTC taster and PTC non-taster). Suppose 36% of a remote mountain village cannot taste PTC and must, therefore, be homozygous recessive (aa) for the PTC non-taster allele. If this population conforms to Hardy-Weinberg expectations for this gene, what percentage of the population must be homozygous (AA) for the PTC taster allele ?

Options :

1. 48%

2. 40%

3. 16%

4. 32%

Question Number : 80 Question Id : 6589881280 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The two key factors responsible for speciation among populations are :

Options :

1. Mutation and heterozygote disadvantage
2. Reproductive isolation and genetic divergence
3. Postzygotic isolation and morphological change
4. Mutation and genetic drift

Question Number : 81 Question Id : 6589881281 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Cells are able to specifically synthesize the L isomers of amino acids, because :

Options :

1. The active sites of enzymes concerned are asymmetric
2. D isomers of amino acids are found in a few small peptides
3. All molecules with a chiral centre are optically active
4. Formation of stable substructures in proteins requires amino acids of one stereochemical series

Question Number : 82 Question Id : 6589881282 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In a titration experiment, the  $pK_1$ ,  $pI$  and  $pK_2$  of Glycine was found to be equal to 2.34, 5.97 and 9.60, respectively. The  $pK_1$  refers to the titration of :

Options :

1.  $-NH_3^+$  group
2. R-group
3.  $-COOH$  group
4.  $-CH_2$  group

Question Number : 83 Question Id : 6589881283 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one will show much broader range of allowed conformations as per Ramachandran Plot ?

Options :

1. Val
2. Thr
3. Gly
4. Pro

Question Number : 84 Question Id : 6589881284 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is an example of the high-energy phosphate compound formed in Glycolysis ?

Options :

1. Glucose - 6 - phosphate
2. 1, 3 - biphospho glycerate
3. Glyceraldehyde 3-phosphate
4. Dihydroxy acetone phosphate

Question Number : 85 Question Id : 6589881285 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In animals, plants and many microbial cells, 2 acetyl-CoA is converted to  $4\text{CO}_2 + 4\text{H}_2\text{O}$  by which of the following ?

Options :

1. Glycolysis
2. Citric acid cycle
3. Pentose phosphate pathway
4. Anaerobic glycolysis

Question Number : 86 Question Id : 6589881286 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Glycogen phosphorylase enzyme attacks which of the following sites in glycogen to release glucose-1-phosphate ?

Options :

1.  $\alpha 1 \rightarrow 4$  glycosidic linkage
2.  $\alpha 1 - 6$  glycosidic branch point
3. Glucose - 6 - phosphate
4. Glucose - 1 phosphate

Question Number : 87 Question Id : 6589881287 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Catalysis by enzymes affects :

Options :

1. Reaction equilibria
2. Reaction rates
3. Forward reactions
4. Reverse reactions

Question Number : 88 Question Id : 6589881288 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Hexokinase from brain has the  $K_m$  values of 0.4, 0.05 and 1.5 mM, for ATP, D-Glucose and D-Fructose, respectively. If in a reaction mixture, the enzyme is presented with 0.1 to 0.4 mM of all the three substrates step by step, which one will bind the enzyme first :

Options :

1. ATP
2. D-Glucose
3. D-Fructose
4. ATP and D-Glucose

Question Number : 89 Question Id : 6589881289 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Steroid hormones are derived from which of the following lipids ?

Options :

1. Fatty acids
2. Phospholipids
3. Triacetylglycerol
4. Cholesterol

Question Number : 90 Question Id : 6589881290 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In the 'Genetic Code', which of the following is considered to be the "Wobble base" ?

Options :

1. 1st base of the codon
2. 2nd base of the codon
3. 3rd base of the codon

4. 3rd base of the anticodon

Question Number : 91 Question Id : 6589881291 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is involved in the 'proof-reading' process during protein synthesis in *E. coli* ?

Options :

1. IF2-GTP and initiation codon
2. EF-Tu - GTP and Codon-anticodon interaction
3. EF-G-GTP and translocation
4. RF1 and termination

Question Number : 92 Question Id : 6589881292 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Primase activity is :

Options :

1. Primer dependent
2. Primer independent
3. Primer and template dependent
4. Primer and coenzyme dependent

Question Number : 93 Question Id : 6589881293 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Female lac insect is :

Options :

1. Oviparous
2. Ovo-viviparous
3. Viviparous

## 4. Cropping

Question Number : 94 Question Id : 6589881294 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

It is most popular of the American breeds, imported to India because of its hardy nature as it can survive in damp, dry or rainy regions. Identify the breed with these characteristics :

Options :

1. Rhode Island Red
2. Rhode Island White
3. Wyandotte
4. Plymouth Rock

Question Number : 95 Question Id : 6589881295 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following is *not* fermented beverages ?

Options :

1. Kefir
2. Buttermilk
3. Leban
4. Koumiss

Question Number : 96 Question Id : 6589881296 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The members of which class of phylum Cnidaria occur only as polyps ?

Options :

1. Hydrozoa
2. Scyphozoa

3. Anthozoa

4. Cubozoa

Question Number : 97 Question Id : 6589881297 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The structural material of sponge i.e. spicules, spongin are manufactured by :

Options :

1. Pore cells

2. Epidermal cells

3. Choanocytes

4. Scleroblast cells

Question Number : 98 Question Id : 6589881298 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Members of which flatworm class are nonparasitic :

Options :

1. Turbellaria

2. Trematoda

3. Cestoda

4. Monogenea

Question Number : 99 Question Id : 6589881299 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The larvae of many common tapeworm species that infect humans are usually found :

Options :

1. Encysted in freshwater snails

2. Encysted in the muscles of an animal, such as cow or pig
3. Crawling in the abdominal blood vessels of cows and pigs
4. Encysted in human brain

Question Number : 100 Question Id : 6589881300 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Protostomes that have an open circulatory system and an exoskeleton of chitin are part of which phylum ?

Options :

1. Cnidaria
2. Annelida
3. Mollusca
4. Arthropoda

Question Number : 101 Question Id : 6589881301 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Common feature between Porifera, Cnidaria, Ctenophora and Platyhelminthes is :

Options :

1. Bilateral symmetry
2. Eumetazoans
3. Absence of coelom
4. Presence of organs

Question Number : 102 Question Id : 6589881302 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The echinoderms are related to chordates by their similarity in the development of :

Options :

1. Gut
2. Nervous system
3. Heart
4. Coelom

Question Number : 103 Question Id : 6589881303 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The vegetative phase of *Plasmodium* in RBC of man is called as :

Options :

1. Sporozoite
2. Trophozoite
3. Merozoite
4. Cryptozoite

Question Number : 104 Question Id : 6589881304 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The first segment of Nereis is :

Options :

1. Peristomium
2. Prostomium
3. Pygidium
4. None

Question Number : 105 Question Id : 6589881305 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

*Wauchereria bancrofti* is transmitted by :

Options :

1. Anopheles
2. Culex
3. Tsetse fly
4. Sand fly

Question Number : 106 Question Id : 6589881306 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Tape worm is a digenetic parasite. Its intermediate host is :

Options :

1. Goat
2. Human beings
3. Pig
4. Buffalo

Question Number : 107 Question Id : 6589881307 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The "totipotent" cells of sponges are :

Options :

1. Choanocytes
2. Archaeocytes
3. Thesocytes
4. Trophocytes

Question Number : 108 Question Id : 6589881308 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is *not* the functional unit of ecosystem ?

Options :

1. Productivity
2. Stratification
3. Energy flow
4. Decomposition

Question Number : 109 Question Id : 6589881309 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is *not* a gaseous biogeochemical cycle in ecosystem ?

Options :

1. Nitrogen cycle
2. Carbon cycle
3. Sulphur cycle
4. Phosphorus cycle

Question Number : 110 Question Id : 6589881310 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Considering population pyramid, left hand side of pyramid is used to show :

Options :

1. Female population
2. Male population
3. Birth rate
4. Mortality rate

Question Number : 111 Question Id : 6589881311 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which among the following awards instituted by the Government of India for individuals or communities from rural areas that have shown extraordinary courage and dedication in protecting wildlife ?

Options :

1. Indira Gandhi Paryavaran Puraskar
2. Medini Puruskar Yojana
3. Amrita Devi Bishnoi Award
4. Pitamber Pant National Award

Question Number : 112 Question Id : 6589881312 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which group of vertebrates comprises the highest number of endangered species ?

Options :

1. Mammals
2. Fish
3. Reptiles
4. Birds

Question Number : 113 Question Id : 6589881313 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Aqueduct of Sylvius is found in :

Options :

1. Liver
2. Brain
3. Kidney
4. Spleen

Question Number : 114 Question Id : 6589881314 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which among the following chronic lung disease commonly known as 'black lung' disease, leads to reduced life expectancy in coal-miners ?

Options :

1. Pneumoconiosis
2. Progressive massive fibrosis
3. Mesothelioma
4. Collier's Asthma

Question Number : 115 Question Id : 6589881315 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Each of the following parasites is transmitted by mosquitoes except :

Options :

1. *Leishmania donovani*
2. *Wuchereria bancrofti*
3. *Plasmodium vivax*
4. *Plasmodium falciparum*

Question Number : 116 Question Id : 6589881316 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Fish is intermediate host for the :

Options :

1. *Taenia solium*
2. *Echinococcus granulosus*
3. *Diphyllobothrium latum*

4. *Taenia saginata*

Question Number : 117 Question Id : 6589881317 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Pigs or dogs are the source of human infection for each of the following parasites except :

Options :

1. *Trichinella spirali*

2. *Taenia solium*

3. *Echinococcus granulosus*

4. *Ascaris lumbricoides*

Question Number : 118 Question Id : 6589881318 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Laboratory diagnosis of *Entamoeba histolytica* depends on identification in the :

Options :

1. blood

2. urine

3. saliva

4. stool

Question Number : 119 Question Id : 6589881319 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Sub-tertian Malaria is cause by :

Options :

1. *Plasmodium falciparum*

2. *Plasmodium ovale*

3. *Plasmodium malaria*

4. *Plasmodium vivax*

Question Number : 120 Question Id : 6589881320 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :  
No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Identify which of the listed parasites is *not* an ectoparasite :

Options :

1. Roundworm

2. Cheyletiella mites

3. Fleas

4. Ticks